American Chiropractic Association

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Synopsis Of Efficacy & Patient Satisfaction Research

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Synopses of Chiropractic Efficacy & Patient Satisfaction Research

Bronfort G, Haas M, Evans R, Bouter L. "Efficacy of Spinal Manipulation and Mobilization for Low Back Pain and Neck Pain: A Systematic Review and Best Evidence Synthesis." ***The Spine Journal*** **2004; 4: 335-356.**

The authors categorized 43 randomized controlled trials to assess the efficacy of Spinal Manipulative Therapy (SMT) for back and neck pain. They concluded that there are now more randomized controlled trials (46) studying the use of spinal manipulation for the management of low back pain than for any other treatment method. Overall, there was limited to moderate evidence (depending on the study) that spinal manipulative treatment of both chronic and acute lower back pain was more effective and provided more short-term relief than many other types of care, including prescription drugs, physical therapy and home exercise. There was moderate evidence that spinal mobilization was superior to physical therapy and some medical regimens for some types of neck pain. Their data synthesis suggests that recommendations can be made with some confidence regarding the use of SMT and/or mobilization as a viable option for the treatment of both low back pain and neck pain.

Descarreaux M, Blouin J, Drolet M, Papadimitriou S, Teasdale N. "Efficacy of Preventive Spinal Manipulation for Chronic Low Back Pain and Related Disabilities: A Preliminary Study." ***Journal of Manipulative and Physiological Therapeutics*** **2004; 27: 509-14.**

Non-specific back pain patients were treated with twelve chiropractic spinal manipulations over a one-month intensive period. The patients were then divided into two groups, one group acting as a control and another receiving maintenance spinal manipulation every three weeks for nine months. Both groups improved with chiropractic care and maintained that improvement during the tenth month study. The group receiving maintenance treatment every three weeks reported better disability scores after nine months than the control group. This study appears to confirm previous reports showing that low back pain and disability scores are reduced after spinal manipulation. It also shows the positive effects of preventive chiropractic treatment in maintaining functional capacities and a reduction in the amount and intensity of pain episodes after an acute phase of treatment.

Fritz J, Whitman J, Flynn T, Wainner R, Childs J. "Factors Related to the Inability of Individuals With Low Back Pain to Improve With a Spinal Manipulation." ***Physiological Therapeutics*** **2004; 84: 173-190.**

The authors state that many interventions used by physical therapists for management of low back pain patients lack evidence supporting their effectiveness. Although spinal manipulation is one of the few interventions for low back pain supported by evidence, it appears to be underutilized by physical therapists. The purpose of this study was to determine factors might cause an inability to benefit from manipulation. The majority of the subjects (72 percent) receiving spinal manipulation showed improvement, consistent with previous clinical trials that have shown favorable results. The physical therapists that wrote this paper support the advice of clinical practice guidelines that advocate at least a trial of manipulation for all patients with a new onset of low back pain. This work was supported by a research grant from the Foundation for Physical Therapy.

Grunnesjo M, Bogefeldt J, et al. "A Randomized Controlled Clinical Trial of Stay-Active Care versus Manual Therapy in Addition to Stay-Active Care: Functional Variables and Pain." ***Journal of Manipulative and Physiological Therapeutics*** **2004; 27: 431-41.**

These medical researchers compared the effects of manual therapy, in addition to a stay-active concept, versus stay-active therapy only in low back pain patients. Manual therapy in low back pain has thus been found more effective than the referenced treatments in the majority of trials reviewed in preparation for this study. They found the manual therapy regime was more cost effective than the stay-active concept in acute and sub-acute low back pain patients. The manual therapy group had better pain reduction, less disability and more improvement in functional activities.

Hoiriis K, Pfleger B, McDuffie F, Cotsonis G, Elsangak O, Hinson R, Verzosa G. "A Randomized Clinical Trial Comparing Chiropractic Adjustments to Muscle Relaxants for Sub-Acute Low Back Pain." ***Journal of Manipulative and Physiological Therapeutics*** **2004; 27: 388-98.**

These researchers compared the relative efficacy of chiropractic adjustments with muscle relaxants and placebo/sham for sub-acute low back pain (two- to six-weeks duration). They found chiropractic was more beneficial than placebo in reducing pain and more beneficial than either placebo or muscle relaxants in reducing the Global Impression of Severity Scale(GIS).

Bergman G, Winters J, Groenier K, Pool J, Meyboom-de Jong B, Postema K, Van Der Heijden G. "Manipulative Therapy in Addition to Usual Medical Care for Patients with Shoulder Dysfunction and Pain." *Annals of Internal Medicine* 2004; 141: 432-439.

These medical researchers from the Netherlands studied the effectiveness of manipulative therapy for the shoulder girdle in addition to usual medical care accelerated recovery of shoulder symptoms. More patients in the manipulative therapy group than those in the medical-only group reported full recovery or very large improvements. These favorable effects were maintained during the 52-week follow-up period. They recommend that general practitioners should consider referring patients with cervicothoracic dysfunction for manual therapy.

Aure O, Nilsen J, Vasseljen O. "Manual Therapy and Exercise Therapy in Patients with Chronic Low Back Pain." *Spine* 2003; 28: 525-532.

Patients complaining of lower back or radicular pain were randomized to either manual therapy or exercise for a period of two months. Both groups of patients improved with treatment, however the manual therapy group shower significantly greater improvement on both short and long- (1 year) term follow-up. The physiotherapists from Norway who designed this study also observed a considerable reduction in sick leave for the manual therapy group.

Niemisto L, Lahtinen-Suopanki T, et al. "A Randomized Trial of Combined Manipulation, Stabilizing Exercises, and Physician Consultation Compared to Physician Consultations Alone for Chronic Low Back Pain." *Spine* 2003; 28: 2185-2191.

These Finnish medical researchers randomly assigned 240 chronic low back pain patients to either manipulative treatment or a medical physician consultation. The manipulative group received four weeks of physician consultation, manipulation and exercise from an experienced manual therapist, while another group received only physician consultation and an educational booklet. Outcome was measured by pain intensity and back-specific disability. Both groups improved, however the patients treated with manipulation and exercise had more reduced pain and better self-rated disability than the consultation group alone.

Giles L, Muller R. "Chronic Spinal Pain - A Randomized Clinical Trial Comparing Medication, Acupuncture and Spinal Manipulation." *Spine* 2003; 28: 1490-1503.

Australian patients with chronic lower back pain of at least 13 weeks duration were randomly assigned either to medication, needle acupuncture or spinal manipulation. The results provided evidence that in patients with chronic spinal pain, manipulation results in greater short-term improvement than acupuncture or medication. The patients receiving spinal manipulation also reported a much higher full recovery rate (27%) than either those receiving acupuncture (9%) or medication (5%).

Wolsko P, Eisenberg D, Davis R, Kessler R, Phillips R. "Patterns and Perceptions of Care for Treatment of Back and Neck Pain: Results of a National Survey." *Spine* 2003; 28(3): 292-298.

These medical researchers conducted a national telephone survey of 2,055 adults, asking if they had back or neck problems during the past 12 months, and if yes, what type of treatment was received and how helpful was it. 33 percent of those surveyed reported having back or neck pain during the last year; 20 percent sought chiropractic care. Chiropractic providers were perceived as having been "very helpful " for back or neck pain in 61 percent of the cases, in contrast to only 27 percent who perceived their medical care as being "very helpful." When the patients who had pain in more than one area were surveyed, their preference for chiropractic was unquestionable. 72 percent of those treated by a chiropractor reported the treatment as "very helpful," compared to only 19 percent of those who had seen conventional providers.

George B. McClelland, D.C., Testimony to the Department of Veterans Affairs' Chiropractic Advisory Committee; Foundation for Chiropractic Education and Research: March 25, 2003.
http://www.chiro.org/LINKS/ABSTRACTS/Testimony_to_the_Department_of_Veterans_Affairs.html

American Chiropractic Association report to the Veteran Administration; American Chiropractic Association: 1999. www.amerchiro.org/pdf/va_report.pdf

Hertzman-Miller R, Morgenstern H, Hurwitz E, et al. "Comparing the Satisfaction of Low Back Pain Patients Randomized to Receive Medical or Chiropractic Care: Results From the UCLA Low Back Pain Study." *American Journal of Public Health* 2002; 92: 1628-1633.

Approximately one third as many back pain patients seek chiropractic care compared to those who seek medical care. The physician community is taking note of the chiropractors' ability to treat lower back pain and their high patient satisfaction. In earlier randomized clinical trials, investigators found spinal manipulation to have similar or better rates of patient satisfaction when compared to medical approaches like physical therapy, McKenzie method and standard medical therapy. This study examined the differences in satisfaction between patients assigned to either medical care or chiropractic care in a managed care organization. In this randomized trial, the chiropractic patients were more satisfied with their back care after 4 weeks of treatment. One possible explanation is that the self-care advice and explanation of treatment had strong effects on patient satisfaction. They also point out that chiropractors might give more detailed physical examinations than do medical providers. They conclude that providers in managed care organizations might be able to increase the satisfaction of their low back pain patients by communicating advice and information to patients about their condition and treatment.

Hoving J, Koes B, De Vet H, Van Der Windt D, Assendelft W, Van Mameren H, Deville W, Pool J, Scholten R, Bouter L . "Manual Therapy, Physical Therapy or Continued Care by a General Practitioner for Patients with Neck Pain." *Annals of Internal Medicine* 2002; 136: 713-7220.

In a randomized, controlled trial, researchers compared the effectiveness of manual therapy, physical therapy (PT) and continued care by a general practitioner (GP) in patients with nonspecific neck pain. The success rate at seven weeks was twice as high for the manual therapy group (68.3 percent) as for the continued care group (general practitioner). Manual therapy scored better than physical therapy on all outcome measures. Additionally, patients receiving manual therapy had fewer absences from work than patients receiving physical therapy or continued care. The magnitude of the differences between manual therapy and the other treatments (PT or GP) was most pronounced for perceived recovery. Because perceived recovery combines other outcomes, such as pain, disability and patient satisfaction, it may be the most responsive outcome measure.

Hawk C, Long CR, Boulanger KT. "Patient Satisfaction with the Chiropractic Clinical Encounter: Report from a Practice-Based Research Program." *Journal of the Neuromusculoskeletal System* 2001; 9(4): 109-117.

When 2,987 patients from a variety of rural and urban locations in the United States and Canada completed a data collection survey, 85 percent stated, "Their chiropractor always listened carefully." 85.3 percent stated, "The chiropractor explained things understandably." 88.2 percent stated, "The chiropractor showed respect for what they had to say." Overall, the majority of patients were highly satisfied with their care.

Gemmell HA, Hayes BM. "Patient Satisfaction with Chiropractic Physicians in an Independent Physicians Association." *Journal of Manipulative and Physiological Therapeutics* 2001; 24(9): 556-559.

In this study, 150 chiropractic patients were surveyed. Chiropractic care received "excellent" remarks by percentage, in the following categories: Time to Get an Appointment – 84.9 percent; Convenience of Office - 57.7 percent; Access to Office by Phone - 77.3 percent; Length of Wait - 75.7 percent; Time Spent with Provider - 74.3 percent; Explanation of Treatment - 72.8 percent; Skill of Provider - 83.3 percent; Personal Manner of the Chiropractor - 92.4 percent. The "Overall Visit" category was given the "excellent" response by 83.3 percent of those surveyed.

Nyiendo J, Haas M, Goodwin P. "Patient characteristics, practice activities, and one-month outcomes for chronic, recurrent low-back pain treated by chiropractors and family medicine physicians: a practice-based feasibility study." *Journal of Manipulative and Physiological Therapeutics* 2000; 23: 239-45.

Patients with chronic (>6 weeks), recurrent lower back pain were treated by either a private chiropractor or a family medicine clinic. After one month of treatment, chiropractic patients averaged higher improvement across all outcome measurements. The differences between provider groups were most marked for the question involving satisfaction with overall care (chiropractic-90%; medical–52%). Chiropractic patients also reported greater improvement and in pain severity and functional disability. This study concluded that chiropractic patients expressed greater satisfaction regarding information and treatment provided.

Burton AK, Tillotson KM, Cleary J. "Single-blind randomized controlled trial of chemonucleolysis and manipulation in the treatment of symptomatic lumbar disc herniation." *European Spine Journal* 2000; 9: 202-207.

Forty patients with confirmed sciatica were treated with either osteopathic manipulation treatment or chemonucleolysis. The pain endured by the patient was measured at 2 weeks, 6 weeks and one year. After a year patients from both groups were very similar in recovery. However, at 2 and 6 weeks those receiving manipulations reported greater improvement.

Giles L, Muller R. "Chronic Spinal Pain Syndrome: A Clinical Pilot Trial Comparing Acupuncture, a Non-Steroidal Anti-Inflammatory Drug and Spinal Manipulation." *Journal of Manipulative and Physiological Therapeutics* 1999; 22: 376-81.

Patients referred to Townsville General Hospital outpatient Spinal Pain Unit in Australia for evaluation and treatment of chronic (>13 weeks) spinal pain were randomized to acupuncture, medication or spinal manipulation. After 30 days of treatment only the manipulation subgroup showed significant reduction in pain intensity. Remarkably, the manipulation group displayed uniform, significant, substantial improvements across all outcome measurements while in the two other intervention groups not a single significant improvement could be found.

Davis TP, Hulbert JR, Kassem KM, Meyer JJ. "Comparative Efficacy of Conservative Medical and Chiropractic Treatments for Carpal Tunnel Syndrome: A Randomized Clinical Trial" *Journal of Manipulative and Physiological Therapeutics* 1998; 21(5): 317-326.

This study sought to compare the effects of chiropractic care and conventional medical care for managing carpal tunnel syndrome. 91 patients with confirmed symptoms of carpal tunnel syndrome were divided into two groups. One group received decreasing amounts of ibuprofen over three weeks. The other group received manipulation of bony joints and soft tissues of the upper extremities and spine. The patients' improvement was monitored through self-reports and analyses of the vibrometric sensibility of the hands. There was improvement in comfort, finger sensation and nerve conduction in both groups. For right hands affected by carpal tunnel the group who received medical care improved by 1.37 decibels according to the vibrometric tests. Those receiving chiropractic care improved by 3.05 decibels.

Nilsson N, Christensen HW, Harvigsen J. "The Effect of Spinal Manipulation in the Treatment of Cervicogenic Headache." *Journal of Manipulative and Physiological Therapeutics* 1997; 20(5): 326-330.

Of 53 individuals who were diagnosed with cervicogenic headaches, 28 individuals in the group received high-speed, low-amplitude spinal manipulation in the cervical spine two times a week for three weeks. The rest of the group received low-level laser to the upper cervical region and deep-friction massage in the lower cervical/upper thoracic region two times a week for three weeks. For those who received spinal manipulation treatment, the amount of headache hours per day decreased 69 percent; for those receiving laser treatment, the decrease was only 37 percent. Intensity of headache decreased 36 percent for those receiving manipulations and 17 percent for those receiving laser treatment. The use of pain relievers went down 36 percent for those receiving manipulations and was unchanged for those receiving laser treatment.

Meade TW, Dyer S, et al. "Randomized Comparison of Chiropractic and Hospital Outpatient Management for Low Back Pain: Results from Extended Follow Up." *British Medical Journal* Aug 1995, Vol. 311.

741 patients were randomly allocated to either chiropractic or hospital outpatient management. A 1990 study by these researchers reported greater improvement in patients with low back pain treated by chiropractors. This paper looks at data after a three-year follow-up. According to total Oswestry scores, improvement in chiropractic patients was 29 percent more than those treated by hospitals. The beneficial effect of chiropractic on pain was particularly clear. Other scores (personal care, lifting, walking, standing, sex life, social life and traveling) also nearly all improved more in the

patients treated with chiropractic care. The substantial benefit of chiropractic on intensity of pain is evident early on and then persists. A higher proportions of patients considered chiropractic care helpful in comparison with hospital treatments. The results show that chiropractic has a valuable part to play in the management of low back pain.

Boline PD, Kassem K, Bronfort G, Nelson C, Anderson A. "Spinal Manipulation vs. Amitriptyline for the Treatment of Chronic Tension-Type Headaches: A Randomized Clinical Trial." ***Journal of Manipulative and Physiological Therapeutics*** **1995; 18(3): 148-154.**

This study compared the effects of spinal manipulation and pharmaceutical treatments for chronic tension headaches. Four weeks following the cessation of treatment, the pharmaceutical group demonstrated no improvement from the baseline. In the spinal manipulation group, headache intensity dropped 32 percent; frequency dropped 42 percent; and there was an overall improvement of 16 percent in functional health status.

Carey TS, Garrett J, Jackman A, McLaughlin C, Fryer J, Smucker DR. "The outcomes and costs of care for acute low back pain among patients seen by primary care practitioners, chiropractors, and orthopedic surgeons. The North Carolina Back Pain Project." ***New England Journal of Medicine*** **1995; 333(14): 913-917.**

This study sought to compare patients' recovery and satisfaction for those with acute low back pain receiving care from the following six groups: Urban Primary Care Physicians; Rural Primary Care Physicians; Urban Doctors of Chiropractic (DCs); Rural DCs; Orthopedic Surgeons; and Primary Care Providers at a Group Model HMO. After six months, functional recoveries, return to work and complete back pain recoveries were similar for all groups. Satisfaction with care was highest for those visiting DCs.

Manga, Pran; Angus, Doug; Papadopoulos, Costa; Swan, William. "The Effectiveness and Cost-Effectiveness of Chiropractic Management of Low-Back Pain." Richmond Hill, Ontario: Kenilworth Publishing, 1993.

A major study to assess the most appropriate use of available health care resources was reported in 1993 by the Ontario Ministry of Health. The report overwhelmingly supported the efficacy, safety, scientific validity and cost-effectiveness of chiropractic for low back pain. "There is no clinical or case-control study that demonstrates or even implies that chiropractic spinal manipulation is unsafe in the treatment of low back pain. Some medical treatments are equally safe, but others are unsafe and generate iatrogenic complications for low back pain patients. The literature suggests that chiropractic manipulation is safer than medical management of low back pain. There is an overwhelming body of evidence indicating that chiropractic management of low back pain is more cost effective than medical management. The evidence includes studies showing lower chiropractic costs for the same diagnosis and episodic need for care. There is good empirical evidence that patients are very satisfied with chiropractic management of low back pain and considerably less satisfied with physician management. Patient satisfaction is an important health outcome indicator and adds further weight to the clinical and health economic results favoring chiropractic management of low back pain."

Sawyer CE, Kassak K. "Patient Satisfaction With Chiropractic Care" ***Journal of Manipulative and Physiological Therapeutics*** **1993; 16(1): 25-32.**

341 new and returning chiropractic patients in Minnesota and Wisconsin completed a patient satisfaction questionnaire. Overall, patients demonstrated a high level of satisfaction with their doctors of chiropractic. 84% of respondents felt their chiropractic care was "just about perfect." 97% agreed or strongly agreed that they would "recommend this doctor to a friend or relative."

Meade TW, Dyer S, Browne W, Townsend J, Frank AO. "Low Back Pain of Mechanical Origin: Randomized Comparison of Chiropractic and Hospital Outpatient Treatment." ***British Medical Journal*** **1990; 300(2): 1431-1437.**

741 patients, who had neither been treated in the past month nor had contraindications to spinal manipulation, were treated either by doctors of chiropractic or with conventional hospital outpatient treatment for management of low back pain. Using the Oswestry scale, which quantifies pain, patients reported back on their improvement at six weeks, six months, one year and two years. At two years, chiropractic care resulted in a 7 percent benefit over hospital care.

Cherkin, D., MacCornack, F. "Chiropractic in the Mainstream: Patient Evaluations of Care from Family Physicians and Chiropractors." ***Western Journal of Medicine*** **March 1989.**

This survey show that patients of chiropractors were three times as likely as patients of family physicians to respond that they were satisfied with the care they received for low back pain. Chiropractic patients were also more likely to have been satisfied with the amount of information they were given and to believe their doctors were concerned about them. This study was conducted at the Group Health Cooperative of Puget Sound, a 40-year-old staff-model Health Maintenance Organization (HMO) in western Washington State with 32,000 enrollees. The percentage of chiropractic patients who were "very satisfied" with the care they received for low back pain was triple that for patients of family physicians (66 percent versus 22 percent). Patients of family physicians were significantly less likely to report having received a graphic description of the causes of low back pain or instruction on exercise, posture and lifting techniques.

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